

## Higher Education Learning Trends Selected Bibliography, Summer 2004

Alexander, Bryan. "M-Learning: Emergent Pedagogical and Campus Issues in the Mobile Learning Environment." EDUCAUSE Center for Applied Research (ECAR). Research Bulletin. 2004 (Aug. 3, 2004).

Mobile technology (wireless networks + PDAs, laptops, cell phones, and other handheld devices) provide both pedagogical challenges (e.g. cheating, checking e-mail and text messaging in class, multitasking, inattention) and opportunities. Faculty should think of ways to incorporate these tools into collaborative learning rather than forbid their use. Some interesting projects going on with m-learning and field work include expanding work beyond the campus boundaries (e.g. the Netherlands "Pick Up Your School and Learn", which includes "augmented reality" where students in the field—e.g. a parking lot—digitally superimposed a map of Roman ruins that once stood in the same place using GPS technology.) In terms of the sociology of these devices students are way ahead of campus infrastructure and IT support capabilities. See:

<http://www.educause.edu/nlii/kethemes/mobilelearning.asp>

and Weblog: <http://www.smartmobs.com/index.html>

Barr, Robert B. and Tagg, John. "From Teaching to Learning—A New Paradigm for Undergraduate Education." Change. 27(1995): 12-26.

"Focuses on the paradigm shift in higher education in the United States. Mission and purposes; Criteria for success; Teaching/learning structures." A seminal article.

<http://search.epnet.com/login.aspx?direct=true&AuthType=cookie,ip,url,uid&db=aph&an=9512100779>

Benjamin, Joan. "The Scholarship of Teaching in Teams: What Does It Look Like in Practice?" Higher Education Research & Development. 19 (2000): 191-204.

(Note: *Special issue: "Scholarship of Teaching."*)

Reports on a study of university teachers working in teaching teams. The study was based on interviews with 15 team members. Considers how their practice matches what is claimed to be scholarly and collaborative in the literatures of scholarship in teaching and teamwork. Expands a model of scholarship in teaching to include the scholarship of teaching in a team and discusses how the teams studied fit this model.

<http://search.epnet.com/direct.asp?an=3839397&db=aph>

Birgerstam, Pirjo. "Intuition--The Way to Meaningful Knowledge." Studies in Higher Education. 27 (2002): 431-44.

Emphasizes the role of intuition in the learning process where rational knowing alone does not suffice. Connects practical, didactic examples applied in a university course in psychology to some epistemological suppositions of different aspects of intuition.

(Note: *See other articles in this issue.*)

<http://search.epnet.com/direct.asp?an=7362298&db=aph>

Bradbeer, John "Barriers to Interdisciplinarity: Disciplinary Discourses and Student Learning." Journal of Geography in Higher Education. 23 (1999): 381-96.

(Note: Written for the *Journal of Geography in Higher Education*

*Symposium: The TALESSI Project*.

Discusses the barriers to interdisciplinarity: (1) differences in the characteristics of disciplinary knowledge; (2) differences in disciplinary traditions to teaching and learning; (3) different approaches to student learning; and (4) different conceptions of teaching and learning. Addresses lifting these barriers to interdisciplinarity

<http://search.epnet.com/direct.asp?an=2496637&db=aph>

Braxton, John M.; Milem, Jeffrey F.; Sullivan, Anna Shaw. "The Influence of Active Learning on the College Student Departure Process: Toward a Revision of Tinto's Theory." Journal of Higher Education. 71 (2000): 569-90.

Path analysis results of three surveys of 718 first-time, full-time, first-year students at a highly selective private research university found that active learning exerts statistically reliable influences on social integration, subsequent institutional commitment, and intent to return.

<http://wilsonxt.hwwilson.com/pdf/02330/MKD86/XSY.pdf>

Breivik, Patricia Senn. Student Learning in the Information Age. Phoenix, Ariz.:

American Council on Education/Oryx Press, 1998.

Z711.2 .B755 1998. (EHS Stacks)

Brown, Judy Sorum. "On Becoming a Learning Organization." About Campus. 1 (1997): 5-10.

Explores ways that colleges and universities can become learning communities in all of their dimensions. Discusses the five disciplines of the learning organization (personal mastery, mental models, shared vision, team learning, and systems thinking) and ways to adhere to these disciplines. Describes leadership roles and the importance of vision.

<http://search.epnet.com/direct.asp?an=10318156&db=aph>

Bruffee, Kenneth A. Collaborative Learning: Higher Education, Interdependence and the Authority of Knowledge. 2<sup>nd</sup> ed. Baltimore: Johns Hopkins U. Press, 1999

(Chap. 1: Collaboration, Conversation, and Reacculturation)

Introduces the value of collaborative learning, the need for reacculturating students through collaboration, and helping them adjust their thinking in terms of authority of knowledge. Interesting ideas on the assumptions of authority of knowledge. This would be an interesting idea to pursue in terms of thinking about the resources we house in the library and the notion of their authority and how students interact with them.

Carik, F.I.M., and Lockhart, R.S., "Levels of Processing: A Framework for Memory Research." Journal of Verbal Learning and Verbal Behavior, 11 (1972):671-84.

"This is the classic article outlining the levels-of-processing (or depth-of-processing) approach. According to this approach, people remember material more accurately if they use deep, meaningful processing rather than superficial processing."

Chang, Kuo-Eng; Sung, Y-T; Lee, C-L. "Web-Based Collaborative Inquiry Learning." Journal of Computer Assisted Learning. 19 (2003): 56-69.

Proposes a Web-based collaborative inquiry learning system and describes a study of undergraduates at the National Taiwan Normal University based on a model system that investigated students' learning processes. Discusses the use of concept maps to anchor and represent knowledge during the inquiry process

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02664909&issue=v19i0001&article=56\\_wci](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02664909&issue=v19i0001&article=56_wci)

"The Changing Pattern of Research and Learning in Higher Education" (part of OCLC Environmental Scan)

<http://www.oclc.org/membership/escan/research/changingpattern.htm>

Chism, Nancy Van Note and Bickford, Deborah J., eds. The Importance of Physical Space in Creating Supportive Learning Environments. San Francisco: Jossey-Bass, 2002. LB3221 .I47 2002. (EHS Stacks)

Cooper, James L. et al. "Implementing Small-Group Instruction: Insights from Successful Practitioners." New Directions for Teaching and Learning. (Spring 2000): 63-76.

(Note: Theme issue: "Strategies for Energizing Large Classes: From Small Groups To Learning Communities." Whole issue online via ASP; has this and several related articles. )

College faculty who have successfully implemented small-group instruction address common concerns such as: reduced content coverage, reduced amount of learning, need for prerequisite learning, importance of solitary learning, colleagues' concerns, student resistance, logistics, evaluation, use of teaching assistants, and time requirements  
LB1628.5 .S87 2000 (EHS Stacks)

Dahlgren, M. Abrandt. "Portraits of PBL: Students' Experiences of the Characteristics of Problem-Based Learning in Physiotherapy, Computer Engineering and Psychology." Instructional Science. 30 (2002): 111-27.

Describes a study that analyzed how students in three different Swedish university programs conceived of the meaning of problem-based learning and how they experienced their studies within a problem-based learning program. Discusses learning in context, social interaction, meta-cognitive reasoning and self-directed learning, and academic cultures.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00204277&issue=v30i0002&article=111\\_pseoi pceap](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00204277&issue=v30i0002&article=111_pseoi pceap)

Detweiler, Richard. "At Last, We Can Replace Lectures." Chronicle of Higher Education. July 9, 2004.

Recent technological developments (e.g. explosion in growth of digitize information, collaborative learning online) have made pedagogy based on "abundance model" vs.

traditional “scarcity model” of resources (limited number of physical copies of books, limited numbers of faculty, etc.) “Technology now allows us to do far more than simply modify current educational models. We need to broaden our horizons and fundamentally rethink both the form and the function of education.”

<http://chronicle.com/weekly/v50/i44/44b00801.htm>

Dolence, Michael. “The Curriculum- Centered Strategic Planning Model.” EDUCAUSE Center for Applied Research Research Bulletin. (May 2004).

<http://www.educause.edu/LibraryDetailPage/666?ID=ERB0410>

Erwin, T.D. and Rieppi, R. “Comparing Multimedia and Traditional Approaches to Undergraduate Psychology Classes.” Teaching of Psychology, 26 (1999): 58-61. “Students in multimedia classes earned higher final examination scores than did students in traditional classes. Also, students’ learning preferences (visual, auditory, or haptic) were not correlated with final examination scores in either of the two conditions.”

<http://search.epnet.com/direct.asp?an=3348783&db=aph>

“Evaluating, Planning and Supporting Computer-Intensive Educational Facilities” (Teaching, Learning, and Technology/TLT Group).

<http://www.tltgroup.org/Facilities/Home.htm>

Flowers, Claudia P.; Hancock, Dawson R.; and Joyner, Rowanne E. “Effects of Instructional Strategies and Conceptual Levels on Students' Motivation and Achievement in a Technology Course.” Journal of Research and Development in Education. 33 (2000): 187-94. LB1028 .A1 J65 (EHS Journal Stacks)

“Investigated the impact of teachers' instructional strategies (direct or non-direct) and college students' conceptual levels (high or low) on students' achievement and motivation to learn. Students in the nondirect instruction group [that is, less structured, allowed more flexibility in order in which tasks undertaken, more interaction among students, etc.], regardless of conceptual level, were more motivated than students in the direct instruction group. Overall, high conceptual-level students demonstrated higher achievement than low conceptual-level students.”

Frank, Donald G.; Beasley, Sarah.; Kroll, Susan M. "Opportunities for Collaborative Excellence: What Learning Communities Offer." College & Research Libraries News 62 (2001): 1008-1011.

A brief article that defines and describes learning communities, particularly in higher education and in relation to academic libraries. The authors give several examples of working learning-community projects and they discuss the benefits for students.

Gabelnick, Faith; MacGregor, Jean; Matthews, Roberta S.; and Smith, Barbara Leigh. “Learning Community Models.” New Directions for Teaching and Learning.(Spring 1990): 19-37. LB2361.5 .L39 1990 (EHS Stacks)

*Note: Theme issue: "Learning Communities: Creating Connections Among Students, Faculty, and Disciplines."*

“Offers a checklist for implementing sustainable learning communities in colleges and universities. Addresses issues including determining focus and design, use of faculty

resources, coordination with current institutional initiatives, administrative support needed, resources needed, promotion and marketing, institutionalization of the concept, and program improvement mechanisms.” Five models: linked courses, learning clusters, freshman interest groups, federated learning communities, and coordinated studies.

Gabelnick, Faith; MacGregor, Jean; Matthews, Roberta S.; and Smith, Barbara Leigh.

“Students in Learning Communities: Engaging with Self, Others, and the College Community” New Directions for Teaching and Learning. (Spring 1990): 61-75.

(Note: Theme issue: “*Learning Communities: Creating Connections Among Students, Faculty, and Disciplines.*”)

Higher retention rates (due to academic expectations and social networks), higher achievement (faculty often demand more of students in such programs), “more intellectually complex environment”—not just simple matter of high GPA—multidisciplinarity, responsibility for own intellectual growth—more advanced in terms of intellectual development. Qualitative research reveals students in lc’s value: friendship, sense of belonging, collaborative learning, “intellectual energy and confidence”, various perspectives, “power of texts” (when shared texts are part of the program), intellectual connections, “embracing complexity”, opportunity to reflect on own learning and learning process. Problems: work load (especially if also working or playing sports, difficulty with opposing (or interdisciplinary) viewpoints for students not yet well enough developed intellectually, too “public”/no place to hide (intellectually); collaborative learning can be difficult for ESL students (culturally, used to deferring to authority). Authors stress trying lc’s early in college career because they can be particularly valuable at that point.

George, Jessica and Warmkessel, Marjorie. “In Search of the Future: Library Services Planning and the Prediction of Student Learning.”

<http://www.ala.org/ala/acrl/acrlvents/george.pdf>

Govindasamy, Thavamalar. “Successful Implementation of E-Learning: Pedagogical Considerations.” Internet and Higher Education. 4 (2001): 287-99.

Identifies the pedagogical principles underlying the teaching and learning activities that constitute effective electronic learning in higher education and in corporate settings.

Discusses return on investment; desirable attributes of an electronic learning environment; developing content; learning objects; assessment; learning management systems; and user profiles

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=10967516&issue=v4i3-4&article=287\\_sioe](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=10967516&issue=v4i3-4&article=287_sioe)

Hacker, D.J., Dunlosky, J., and Graesser, A.C., eds. Metacognition in Educational Theory and Practice. Mahway, NJ: Erlbaum, 1998.

“This book provides an excellent in-depth summary of metacognitive topics relatd to education. Especially helpful chapters include Maki’s discussion of student’s predictions about their understanding of textbook material, Pressley and his colleagues’ summary of college students’ studying and time management, and Winne and Hadwin’s examination of self-regulaiton during studying.”

Hakim, Musa Abdul. "Navigating the Web of Discourse on the Scholarship of Teaching and Learning; an Annotated Webliography." College & Research Libraries News. 63 (2002): 502-5.

A webliography of organizations, programs, Web sites, and online journals and journal articles focusing on developing the "scholarship of teaching and learning"/pedagogy (to redress the imbalance with more traditional notions of "scholarship of research") across many disciplines.

<http://www.ala.org/ala/acrl/acrlpubs/crlnews/backissues2002/julyaugust/scholarshipteaching.htm>

Halpern, Diane F. and Hakel, Milton D., eds. Applying the Science of Learning to University Teaching and Beyond. San Francisco : Jossey-Bass, 2002. LB2331 .A66 2002. (EHS Stacks)

Halpern, Diane F.; Hakel, Milton D. "Applying the Science of Learning to the University and Beyond: Teaching for Long-Term Retention and Transfer." Change. 35 (2003):36-41.

Discusses why experts from different areas of the learning sciences conclude that higher education's primary goals—enhancing long-term retention and the transfer of knowledge--depend on educators applying tested principles drawn from what is now known about human learning. Describes some of these principles

<http://search.epnet.com/direct.asp?an=10047046&db=aph>

Harkavy, Ira and Romer, Daniel. "Service Learning as an Integrated Strategy." Liberal Education. 85 (1999):14-19.

*Note: Theme issue: "Experiential Education: Learning Outside the Box."*

Raises concerns about effectiveness of service learning efforts to engage students in community problems as part of an integrated curriculum. Suggests the HIV epidemic as a situation requiring the diverse resources of modern colleges and universities and proposes partnerships with local communities to address the problem. Programs at the University of Alabama and Bryn Mawr College are described

<http://search.epnet.com/direct.asp?an=2244928&db=aph>

Heffler, Bo. "Individual Learning Style and the Learning Style Inventory." Educational Studies. 27 (2001): 307-16.

"Focuses on the experience learning theory (ELT) that views learning as a process, explaining that it entails a four-stage process that includes four learning modes. Presents the results of a study that used the learning style inventory (LSI) that examines one's approach to learning situations."

<http://search.epnet.com/direct.asp?an=5253808&db=aph>

Hopper, Keith B. "In Defense of the Solitary Learner: A Response to Collaborative, Constructivist Education." Educational Technology. 43 (2003):24-29. LB1044.A1 T4 (EHS Current Journals)



“Discusses online course design in higher education and cautions against blind accepting constructivist and collaborative learning strategies. Explains many of the problems associated with these strategies, including the use of technology; considers social change; and describes groupthink and its influence in online courses”.

Collaborative learning may be inappropriate for certain subjects, goals, students (e.g. students with social anxiety disorder.) May lead away from critical thinking to unwise group decisions. Sometimes the individual knows best. Seems, like anything, else collaborative learning is one tool in a whole toolkit available to instructors—all depends on the purpose.

Hron, A. and Friedrich, H.F. “A Review of Web-Based Collaborative Learning: Factors Beyond Technology.” Journal of Computer Assisted Learning. 19 (2003): 70-79.

“Web-based collaborative learning has a large potential for knowledge acquisition. However, it has different characteristics compared with conventional learning scenarios; especially with respect to the social communication situation, message exchange, cognitive load and participation of the learners. To cope with possible problems resulting from these characteristics suitable instructional means have to be considered, like collaborative learning methods, on-line moderation, appropriate learning tasks or computer-based visualisation tools.”

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02664909&issue=v19i0001&article=70\\_aro\\_wclfbt](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02664909&issue=v19i0001&article=70_aro_wclfbt)

Hulme, Eileen. “Anticipatory Consciousness: A Learning Paradigm Revisited for College Students.” NASPA Journal. 39 (2001): 41-52.

“Discusses a recent study of the nature of today's college students that revealed the importance of teaching hope as a means of empowering the transitional generation now attending college. This qualitative study reveals the nature of hope and despair and its effect on the learning process from the perspective of 32 college students.” Studies the nature of hope and despair and their effect on learning, via input from thirty-two college students. Lots and lots of sociological jargon. Toward the end, the four "Implications for Practitioners" offer sound advice.

<http://wilsonxt.hwwilson.com/pdf/01572/P16IG/XSY.pdf>

Jaffee, David. “Learning Communities Can Be Cohesive and Divisive”. Chronicle of Higher Education. July 9, 2004.

Author, a sociologist, warns that freshman learning communities can separate freshmen too much from older students who might motivate them academically. Also may encourage “groupthink” which faculty can’t penetrate; may cause disruption in classroom—students vs. faculty or student group vs. student group. (Less of this problem with more flexible, less lecture-oriented profs.) Choose faculty who are comfortable with this flexibility and be sure to educate them about possible pitfalls.

<http://chronicle.com/weekly/v50/i44/44b01601.htm>

Jones, Catherine et al. “Group Interactive Learning with Group Process Support Technology.” British Journal of Educational Technology. 32 (2001): 571-86.

“Evaluates a pilot study conducted at the University of Glamorgan that investigated whether group process support technology has the potential to improve the learning experience of students in seminar groups by increasing participation and focusing debate. Describes how the use of the technology [wireless handsets, a PC, a data projector ]was varied among groups and suggests further research.”

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00071013&issue=v32i0005&article=571\\_gilwgpst](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00071013&issue=v32i0005&article=571_gilwgpst)

Kane, Ruth; Sandretto, Susan; and Heath, Chris. “Telling Half the Story: A Critical Review of Research on the Teaching Beliefs and Practices of University Academics.” Review of Educational Research. 72 (2002): 177-228.

” Reviewed research on teaching beliefs and practices of university academics and revealed that espoused theories of action have not been distinguished from theories-in-use by some studies. Contends that research must examine what university teachers say and what they do in practice” A critical analysis of the literature on how teachers' beliefs affect their classroom practices, primarily through college. It's a detailed bibliographic essay that summarizes and questions the methods and findings of various published studies.

<http://wilsontxt.hwwilson.com/pdf/00924/P24PT/ES6.pdf>

Kansanen, Pertti. “Studying--The Realistic Bridge between Instruction and Learning. An Attempt to a Conceptual Whole of the Teaching-Studying-Learning Process.” Educational Studies. 29 (2003): 221-32.

”Focuses on the interaction between a teacher and students based on relationships among the teacher, students, and the content in the instructional process. States that how the students meet the content is fundamental to learning. Includes references.” The title says it all. Kansanen's thesis is that "the totality of the educational process is too often forgotten.”

<http://search.epnet.com/direct.asp?an=10282649&db=aph>

Kell, Clare and van Deursen, Robert. “Student Learning Preferences Reflect Curricular Change.” Medical Teacher. 24 (2002): 32-40.

“Measures the learning preference profile development and readiness for self-directed learning over time of two undergraduate student cohorts experiencing different curricular presentations of essentially the same syllabus.” Both test groups originally preferred a concrete, fact-based environment that was teacher-structured, but the group who experienced more curricular changes moved toward a preference for environments which they were given more control. Study recommends curricular changes could be used to mold student learning development and that attention should be given to identify “best fit” learning and teaching environments and activities that facilitate development of skills for self-directed learning.

<http://search.epnet.com/direct.asp?an=5942252&db=aph>



Kinhead, Joyce, ed. Valuing and Supporting Undergraduate Research. San Francisco : Jossey-Bass, 2003.LC5225.R47 V35 2003. (EHS Stacks)

Kirschner, D. and Whitson, J.A. ,eds. Situated Cognition: Social, Semiotic, and Psychological Perspectives. Mahway, NJ: Erlbaum, 1997.

“The situated cognition approach argues that learning occurs not in a vacuum but in a natural context that is both social and cultural. Readers may wish to begin with Bereiter’s chapter, which addresses the problem that material learned in one situation is not often transferred to another situation.”

Langer, E. and Modoveanu, M., eds., “Mindfulness Theory and Social Issues.” Journal of Social Issues, 56 (2000)  
(*Special issue*)

“Langer’s concept of mindfulness stresses the importance of drawing novel distinctions, noticing new features, and achieving enhanced awareness about a cognitive task. This special issue examines how mindfulness influences tasks such as problem solving, remembering, and speaking.”

Leskes, Andrea. “Designing Institutional Change.” Liberal Education.89 (2003): 32.  
“Explains the Association of American Colleges and Universities' initiative to define the aims of twenty-first century undergraduate education, called ‘Greater Expectations: The Commitment to Quality as a Nation Goes to College.’ Then introduces articles that describe successful change and innovation at three colleges”. The new vision centers on a liberal education that aims to prepare all students to become intentional learners. Three exemplary institutions are the Worcester Polytechnic Institute, Richland College, and King's College--and essays about them follow on to p. 41.

<http://search.epnet.com/direct.asp?an=9339931&db=aph>

Lippincott, Joan. “Developing Collaborative Relationships: Librarians, Students, and Faculty Creating Learning Communities.” College & Research Libraries News. 63 (2002): 190-2.

Describes “New Learning Communities” workshops offered cooperatively in ’94 and ’95 by Coalition for Networked Information (ACRL, AAHE, Educom) to develop models of collaboration in learning communities among faculty, librarians, students, IT, etc. The “information environment”, librarian a co-teacher/learner. Librarian more than a “guest lecturer” as is so typical, but integrally involved in planning and teaching the course.

<http://www.ala.org/ala/acrl/acrlpubs/crlnews/backissues2002/march/developingcollaborative.htm>

(See also: <http://www.cni.org/projects/nlc/resources/index.html>)

MacDonald, Colla J. et al.” The Demand-Driven Learning Model: A Framework for Web-Based Learning.” Internet and Higher Education. 4 (2001): 9-30.

“Reviews recent philosophical debate surrounding the future role and activities of universities in a technological society; discusses the need for new learning models to meet the needs of working adult students; and presents the demand-driven learning model, a collaborative effort between academics and experts from private and public industries that includes Web-based learning.” Five authors discuss the literature on Web-

based learning. Their demand-driven model has adult learners in mind and can apply to both the academic and the corporate setting. They describe the DDLM with one big diagram and a slew of text.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=10967516&issue=v04i0001&article=9\\_tdlm](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=10967516&issue=v04i0001&article=9_tdlm)  
(See also other articles in this issue.)

MacKinnon, Gregory R. "Why Models Sometimes Fail: Eight Suggestions To Improve Science Instruction." Journal of College Science Teaching. 32 (2003): 430-33. U6 J68 (EHS Journal Stacks)

"Discusses the use of models as an instructional method in science classrooms and makes suggestions on how to use models more effectively." Keep varied learning styles in mind- one size doesn't fit all; also gender styles (separated/connected); keep learning sequence in mind: enactive (working with concrete/models)→symbolic (what models represent), not vice versa (talking theory first, then illustrating with models. "Involve students in critical analysis of models" by hands-on manipulation, comparison, etcQ183

Major, Claire H. "Problem-Based Learning in General Education at Samford University A Case Study of Changing Faculty Culture through Targeted Improvement Efforts." Journal of General Education. 51 (2002): 235-56.

(Note: Theme issue on problem-based learning.)

"Argues that most curriculum changes within colleges and universities have been implemented on a short-term, piecemeal basis. Suggests that research examine how curricular change can be accomplished over time and across programs, as well as what cultural considerations affect the effort. Details problem-based learning changes instituted at Samford University in Alabama" In spite of one's hopes for curricular reform, the student-centered learning paradigm is long in developing and usually occurs on a short-term, piecemeal basis. This detailed treatment of Samford University (near Birmingham, Alabama)--of its problem-based learning initiative--ends with a wrap-up of recurring themes.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=15272060&issue=v51i0004&article=235\\_pligeafcttie](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=15272060&issue=v51i0004&article=235_pligeafcttie)

Marcum, James W. "Rethinking Information Literacy." Library Quarterly. 72 (2002): 1-26.

"Critiques the model of information literacy as a central purpose of librarianship. Reviews the appropriateness of the 'learning methodology' of the information literacy model. Outlines the challenge of relating information literacy to workplace competencies. Proposes that information literacy be refocused away from information toward learning, and beyond literacy in the direction of sociotechnical fluency" Marcum smites the golden calf of information literacy by critiquing its underlying premises and assumptions. He blames Patricia Breivik with starting the idea-become-gospel, and then rips into the history of learning theories in the information-slash-computer environment. The problem is that "too little acknowledgement is afforded to the context brought to the process by

the learner." A mix of various literacies (tools) is stirring around, and we need a broader vision to encompass "learning rather than information." This is useful reading for all public-service librarians.

<http://search.epnet.com/direct.asp?an=6188300&db=aph>

Marienau, Catherine and Fiddler, Morry. "Bringing Students' Experience to the Learning Process." About Campus. 7 (2002): 13-19.

"Experience has been the focus of many approaches to student engagement and active learning. However, how can students make that critical connection between their own experiences and what they are studying? The authors show how student reflection is the key ingredient for transforming experience into meaningful learning." An "inquiry into the connections between curriculum and experience" that focuses on adult undergraduate and graduate students. The emphasis is on the students' learning from experience.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=10864822&issue=v07i0005&article=1\\_toc](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=10864822&issue=v07i0005&article=1_toc)

Mayer, Richard E. "Cognitive Theory and the Design of Multimedia Instruction: An Example of the Two-Way Street between Cognition and Instruction." New Directions for Teaching and Learning. (Spr 2002): 55-71.

(Note: Theme issue titled "Applying the Science of Learning to University Teaching and Beyond," edited by Diane F. Halpern and Milton D. Hakel.)

"Examines the design of multimedia learning environments as a case example of the intertwined and reciprocal relation between cognition and instruction. Explores the contributions of cognitive theory to multimedia design issues and the contributions of multimedia design issues to cognitive theory." Makes case for a cognitive theory of learning and how it can be used for designing multimedia instruction. Based on three assumptions on how people learn from words and pictures [dual channel, limited capacity, active processing]. Learning is most likely to happen successfully when corresponding verbal and pictorial representations of concepts are in working memory at the same time. Extrapolates eight design principles—significantly deeper learning and understanding occurs when these conditions are met:

1. multimedia: pictures added to verbal explanations
2. contiguity: words and pictures presented simultaneously rather than successively
3. coherence: extraneous words, sounds, or pictures are excluded
4. modality: words are narrated, rather than presented as on-screen text
5. redundancy: words are narrated only, rather than both narration and on-screen text
6. personalization: words presented conversationally, not in a formal style
7. interactivity: learners control presentation rate
8. signaling: key steps in narration are signaled, as by spoken emphasis of important words

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02710633&issue=v2002i0089&article=55\\_ctatdatsbcai](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02710633&issue=v2002i0089&article=55_ctatdatsbcai)

McLoughlin, Catherine and Luca, Joe. "A Learner-Centred Approach to Developing Team Skills through Web-Based Learning and Assessment." British Journal of Educational Technology. 33 (2002): 571-82.

(Note: *Special issue: Technology and Assessment.*)

"Considers higher education and professional learning and describes a Web-based course focusing on project management skills, including collaboration. Discusses professional knowledge; self-directed learning; social processes of professional learning; integration of learning and assessment; social support for professional skills; cognitive support for professional learning; and task design based on project-based learning"

Key concepts:

Learning is a social skill.

Professional knowledge comprises the integration of three types of knowledge:

1. propositional—content, concepts
2. process—experience, decision-making skills, exhibiting appropriate behaviors
3. personal—interpretation of experience, internal understanding

Higher education generally emphasizes the intrinsic value of learning, i.e., learning for its own sake, while professional education emphasizes "operational outcomes" and specific skills. Web-based courses need to take into account the social and interactive components of learning. Technology should support the various cognitive and social aspects.

One way is "scaffolding," i.e., guided assistance from a teacher or peer to help a learner perform a task that the learner is not initially able to do independently. The guidance is designed to gradually be removed until the learner can perform similar tasks unaided.

Scaffolds can take the form of shared workspaces, chat, online resources and links.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00071013&issue=v33i0005&article=571\\_alatdtstwlalaa](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00071013&issue=v33i0005&article=571_alatdtstwlalaa)

Metcalfe, J. and Shimamura, P.A., eds. Metacognition: Knowing About Knowing. Cambridge, Mass: MIT Press, 1994.

"This superb resource has chapters on topics such as memory monitoring, feeling of knowing, and other applications of metacognition."

Nelson, T.O. "Consciousness and Metacognition." American Psychologist. 51 (1996): 102-116.

"Here is a short, useful review of relevant concepts such as feeling of knowing, metacognitive monitoring, and judgments of learning."

Oblinger, Diana. "Boomers, Gen-Xers, and Millennials: Understanding the 'New Students'". EDUCAUSE Review (2003)

"The author discusses how the learning styles, attitudes, and aptitudes of today's "new students" vary depending on age, experience, and preferences, requiring colleges and universities to find a variety of ways to meet students' expectations."

[http://www.educause.edu/content.asp?page\\_id=666&Redirect=True&ID=ERM0342&bhcp=1](http://www.educause.edu/content.asp?page_id=666&Redirect=True&ID=ERM0342&bhcp=1)

Perez-Prad, Aixa and Thirunarayanan, M. O. "A Qualitative Comparison of Online and Classroom-Based Sections of a Course: Exploring Student Perspectives." Educational Media International. 39 (2002): 195-202.

(Note: Issue theme: *Past, Present and Future of Educational Technology*.)

"Explored students' perceptions of learning experiences in an online and a face-to-face section of the same university course. Qualitative data from students and the instructor showed the importance of peer interaction and cooperative learning environments; difficulties and benefits of Web-based instruction; and the importance of the affective domain in the learning process."

Three themes:

1. Importance of peer interactions: cooperation/collaboration, discussion and teaching each other helped understanding and learning of concepts
2. Difficulties and benefits of web-based instruction: students may feel that keeping up with course is harder without the physical presence of the teacher to guide them. However, writing out messages, etc., may promote deeper reflection and thought about content and concepts.
3. Importance of affective domain to learning: emotional element of live interaction in the classroom is difficult, if not impossible, to achieve online.

The social-emotional element of learning is a very important consideration for the classroom experience, but it is difficult to achieve in purely web-based courses at this time.

<http://ceres.ingentaselect.com/vl=4231642/cl=40/nw=1/rpsv/cw/routledg/09523987/v39n2/s10/p195>

Pescosolido, Bernice A. and Ronald Aminzade , eds. The Social Worlds of Higher Education : Handbook for Teaching in a New Century. Thousand Oaks, Calif.: Pine Forge Press, c1999.

Petrowski, Mary Jane; Baird, David. and Leach, Karen. "Building a Successful Collaboration: Colgate University's Collaboration for Enhanced Learning." College & Research Libraries News. 61 (2000): 1003-5.

Colgate University created the Collaboration for Enhanced Learning (CEL) to explore how technology could improve student learning. CEL originally consisted of four information technologists and three librarians as a resource for faculty who wanted to develop teaching, learning, and technology in their classes. CEL selected a Web course shell, installed software, delivered faculty workshops, provided consulting, and attending faculty meetings to share idea. Over the next year, CEL developed a place for faculty to share teaching resources and assignments and developed a Web site.

Ramsey, V. Jean "Learning Journals and Learning Communities." Journal of Management Education. 26 (2002): 380-401. HD30.4 E93 (BUS Stacks)

The teacher of a graduate course on learning organizations wrote and shared a learning journal with students, demonstrating her role as a co-learner in a learning community.

Written feedback from students gave the teacher important information about their learning processes.

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A Report on the Harvard College Curricular Review (April 2004)

From the "Summary of Principal Recommendations":

- Enhance students' opportunities in international studies and in the sciences
- Replace the Core Program with "a new system of general education"
- Regarding majors: delay the timing of choice, provide a more-flexible general education requirement, and offer more opportunities for exploration before deciding
- Form an office to coordinate academic advising
- Assign freshmen to their upperclass House upon arrival (to a build sense of community) [?]
- Have more capstone experiences and advanced work on interdisciplinary topics
- Synchronize various Faculties' calendars and "liberate January as a month for experimental programs, in and beyond the curriculum"
- Smaller classes; small-group seminars; and a much more numerous faculty over the next decade

<http://www.fas.harvard.edu/curriculum-review/report.html>

Riddle, John S. "Where's the Library in Service Learning?: Models for Engaged Library Instruction." Journal of Academic Librarianship. 29 (2003): 71-81.

Discusses service learning and presents models of instruction that academic libraries might offer to service learning pedagogy. Highlights include the role of information literacy; reflection; affective and cognitive learning outcomes of service learning; impact of service learning on libraries; learning process model; course objectives model; subject content model; and engaged library instruction.

1. "[A form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development. Reflection and reciprocity are key concepts of service learning.\[ 7 \]](#)" (Jacoby definition)
2. Through service learning the students become "participants," even if only for a short time, within social problems, and then hopefully learn reciprocally from both "experiences," that of the classroom and the community engagement
3. Reflection is another key component—making it more than just "volunteering".
4. (For OSU Service Learning Initiative info, see: <http://www.service-learning.ohio-state.edu/>)
5. Mixed evidence on cognitive value of s.l., although affective value is clearer.
6. Holistic research shows of interest to librarians, students saw need for ability to gather information, assess it critically, and that they are better able to apply that critically analyzed info to new situations.
7. introducing two "external" elements (i.e., user behavior and the social/ideological contexts of information resources) into the more formal and systematized matrix of information literacy,



8. Models of library instruction: 1) cognitive process involvement; 2) course objectives, 3) subject content
9. cognitive process: shock (new, disturbing environment)→normalization→engagement
10. Course objectives model: responsive to both separate and connected-type learners
11. In both course objective/subject content models the library itself is the community in which service is practiced (or could be) Students also can be sent to public libraries, senior centers, etc. in course taught by librarian. Campus community and external community involvement.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00991333&issue=v29i0002&article=71\\_wtlisl](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00991333&issue=v29i0002&article=71_wtlisl)

Ronteltap, Frans and Anneke Eurelings. "Activity and Interaction of Students in an Electronic Learning Environment for Problem-Based Learning." Distance Education 23, n1 (May 2002): 11-22.

(Note: Special issue: Studying Collaboration in Distributed Problem-Based Learning Environments.)

Discusses the results of an experimental study in which university students used a collaborative learning tool in between regular meetings of a tutorial group in problem-based learning. Highlights include a model of asynchronous collaborative learning mechanisms; interactions; information processing; and social factors.

- Problem based learning (PBL) based on "authentic and complex problems". Can be written or distance/network based, individual or collaborative
- Can use computer simulations
- Critical that internal thought processes be externalized/be made visible so that they can be examined and critiqued. Pairs of PCs or small groups of PCs critical in non-distance ed

<http://search.epnet.com/direct.asp?an=6682277&db=aph>

Rosie, Anthony. "Online Pedagogies and the Promotion of "Deep Learning"." Information Services & Use 20, n2-3 (2002): 109-116.

(Note: Special issue: Computer-Based Learning Systems and Distance Learning.)

Discusses how online approaches can provide students with greater degrees of personal control over learning in ways that support deep learning. Reports on the use of a commercially produced online learning environment in a United Kingdom university undergraduate course and outlines future developments that support the didactical approach underpinning the pedagogy.

- Examined use of combo of face-to-face and WBT TopClass online learning for a class on identity development. What was the effect on "deep learning" (vs. "surface learning")?
- "Deep learning addresses ways in which people can stand back and conceptualise, seek out interconnections between concepts and data while reflecting on their learning. The deep learner is able to both retain information and organise materials in a variety of ways."

- Used dialectical (thesis/antithesis) approach; looking for contradictions, going beyond the obvious and the safe
- In addition to standard, required 2-hour final, students defined personal learning outcomes. Were urged, tutored to refine them to make them more meaningful than simply “learn about. . .” Also a number of written themes/reflections
- Online (but asynchronous) discussion of pre-defined discussion questions. As students raised (and explored the opposite) thesis/antitheses, they were forced by the tutorial moderator to define their terms—fill in gaps in understanding.

<http://search.epnet.com/direct.asp?an=4507803&db=aph>

Samuelowicz, Katherine and John D. Bain. “Revisiting Academics' Beliefs about

Teaching and Learning.” Higher Education 41, n3 (Apr 2001): 299-325.

Studied ways of thinking about teaching and learning and the disposition to teach in particular ways for 39 academics, revisiting a previous study and re-evaluating the belief framework developed from that study. Proposes an extended framework that distinguishes between teaching-centered and learning-centered orientations to teaching and learning. Examined any changes between 1992 study and this one on the continuum from “teaching centered” to “learning centered” (“transmissive” vs. “facilitative”) including number and types of categories of both. Ranged from “imparting information” (at teaching end) to “encouraging knowledge creation” (at learning end.) No one saw “encouraging knowledge creation” relevant to undergrads—only grad students., but authors say that might have resulted from their choice of disciplines to study. Generally some shift toward learning-centered.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00181560&issue=v41i0003&article=299\\_rabatal](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00181560&issue=v41i0003&article=299_rabatal)

Sarason, Seymour B. And What Do YOU Mean by Learning? Portsmouth, NH:

Heinemann, 2004. LB1060 S27 2004 (EHS Stacks)

“Central to Sarason’s questions on all fronts is the distinction between the contexts of productive and unproductive learning, the latter being far more frequent than the former. Unlike the words ‘sticks’ and ‘stones,’ learning’ is not concrete, visible, palpable. Learning is a process that takes place in a social context involving and intertwining motivation and attitudes, cognitive and emotional responses, no one of which is ever zero in strength.”

“Seven Principles for Good Practice in Undergraduate Education.”

<http://www.byu.edu/fc/pages/tchlrnpages/7princip.html>

Smallwood, Scott. “Me and My Professor.” Chronicle of Higher Education 48, n23 (Feb 2002): A16-A18.

Describes how Williams College borrows an old format, professor-student tutorials, to put a new spin on a more personal education. Also done at Cornell U. 2 students/1 professor (5 pairs of students per “class”). Meet once a week. One student presents paper, other critiques it. Not independent study because they have assignments, reading lists, problem sets, etc. Professor tries not to intrude on discussion, only guiding when

necessary. Even senior science courses taught this way. Students like the challenge and the educational value; professors love being able to concentrate on subject matter and not on “running the class”. Students feel the onus of keeping the discussion going, so it’s even better in that respect for the professor than a seminar. Acknowledges that this isn’t the only type of format to offer—just one of many useful choices.  
(Available through Lexis-Nexis Academic.)

Smith, S.M. and P.C. Woody. “Interactive Effects of Multimedia Instruction and Learning Styles.” Teaching of Psychology 27 (2000): 220-223.

“Students in an introductory psychology course were taught using either the traditional lecture technique or with lectures supplemented by multimedia visual components. Students with the standard lecture approach initially scored lower on exams, but differences disappeared on later exams. In addition, ‘visual orientation’ students were more likely than ‘verbal orientation’ students to perform well with the multimedia approach.”

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00986283&issue=v27i0003&article=220\\_ieomials](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=00986283&issue=v27i0003&article=220_ieomials)

Solomon, David L. “A Pirate's Life: A Model and a Metaphor for Learning.” Educational Technology 42, n2 (Mar-Apr 2002): 7-14. LB1044 A1 T4 (EHS Journal Stacks)  
(Note: *Special issue: Broadening the Definition of Learning.*)

“Discusses various ways in which context may be interpreted to enhance learning and performance; illustrates domains of learning using a hockey team as an example; and suggests implications for learning, performance, and instructional design. Highlights include an ecological systems model; and examples of individual development, team learning, and motivation.” Ecological systems model of learning context: microsystem (immediate surroundings), mesosystems (interrelationships between microsystems), exosystem (not directly experienced, but influential. . . , macrosystem (larger social class and culture), chronosystem (changes across time). Need to pay attention to interrelationships among all these systems.

“Teaching and Learning at the Research University: An Interview with Larry Cuban.” Peer Review 2, n4 (Sum 2000): 15-19. LB2300 A33 (EHS Journal Stacks)

”Explores curriculum reform at research universities through an interview with Larry Cuban, professor of education at Stanford University. Overall, broad, fundamental changes in higher education are reduced to narrow and incremental changes, so that in spite of constant pressure to reform, there is a lot of stability in school and university curricula. (SLD)” The Association of American Colleges and Universities interviews “realistic optimist” Larry Cuban of Stanford University on the subject of K-college education reform. Cuban pulls no punches: “The lecture is going to continue” due to large enrollments calling for mass instruction; only five to ten percent of teachers practice student-centered instruction; and research is put ahead of teaching in universities. But for reform to work, leadership and goals are critical.

<http://www.aacu-edu.org/>

Tenenbaum, Gershon et al. "Constructivist Pedagogy in Conventional On-Campus and Distance Learning Practice: An Exploratory Investigation." Learning and Instruction 11 (2001): 87-111.

Study tries to identify elements of constructivism in distance learning, face-to-face, and open environments. Defines constructivist teaching and learning where "knowledge is an entity ... actively constructed by the interaction between the learner and external objects through adaptation of and to the experiential world." Eight components of constructivism are used for analysis of learning environments: "ethos/environment (learner or content centered); authenticity of content (real world or theoretical); learner's personal experiences (sought or not utilized); learner-learner inter reaction (encouraged or not sought); learner "thinking aloud (encouraged or not sought); feedback on contributions (encouraged or dismissive); development of thinking/understanding (dominant or neglected); and learner contributions to tutorials (valued or not sought)." Findings show students learn most effectively when "new information is connected to and built upon a student's prior knowledge and real-life experiences...when allowed to have some control over the learning environment, and respond best to collaborative learning environments in which the instructor and students provide and share information." Study determined a lack of constructivist principles in both conventional and distance learning practices both because of lack of knowledge of these principles or the difficulty in implementing them.  
[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=09594752&issue=v11i0002&article=87\\_cpicoadlpaei](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=09594752&issue=v11i0002&article=87_cpicoadlpaei)

Thomas, Matthew J. W. "Learning within Incoherent Structures: The Space of Online Discussion Forums." Journal of Computer Assisted Learning 18 (2002): 351-366. "Presents results from a study of undergraduate students' learning outcomes and patterns of interaction within an online discussion forum. Topics include social dynamics of computer-mediated communication versus face-to-face communication; cognitive engagement; critical and reflective thinking; and student interaction." Based on "conversational model" of learning, i.e., communication as means to increase quality of teaching and learning. Found that online discussion forum is good for promoting critical thinking skills in relation to specific topics and threads, but is not a sufficient substitute for face-to-face group discussion or dialogue which supposedly promotes deeper learning of concepts. (*See other articles from this issue.*)  
[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02664909&issue=v18i0003&article=351\\_lwistsoodf](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=02664909&issue=v18i0003&article=351_lwistsoodf)

Tinto, Vincent. "Universities as Learning Organizations." About Campus 1 (1997): 2-3. Discusses ways colleges and universities in the United States can become learning organizations. Structure of universities that can promote learning; Adopting modes of organization in curriculum, pedagogy, academic work and assessment that promote educational community among students and faculty; Reorganization of curriculum into learning communities; Reorganization of classrooms to promote shared, collaborative learning experiences  
<http://search.epnet.com/direct.asp?an=10318154&db=aph>

Vander Stoep, S.W., Fagerlin, A., Feenstra, J.S. "What Do Students Remember from Introductory Psychology?" Teaching of Psychology 27 (2000): 89-92.

"During the last week of the semester, students in introductory psychology classes were asked to recall what they remembered from the course. They were most likely to remember vivid in-class demonstrations and dramatic videos. The accuracy of free recall was correlated with grade in the course."

VanLehn, Kurt et al. "Why Do Only Some Events Cause Learning During Human Tutoring?" Cognition and Instruction 21 (2003): 209-249.

Compared tutoring episodes where tutoring did and did not cause learning in university physics students to inform design of intelligent tutoring systems. Found that when students were not at an impasse, learning was uncommon regardless of the tutorial explanations employed. When students were at an impasse, tutorial explanations were sometimes associated with learning. Different types of explanations were associated with learning different types of knowledge

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=07370008&issue=v21i0003&article=209\\_wdosecldh](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=07370008&issue=v21i0003&article=209_wdosecldh)

Watts, Misangyi, ed. Technology : Taking the Distance Out of Learning. San Francisco : Jossey-Bass Publishers, c2003. LC5803.T4 T42 2003. (EHS Stacks)

Weigel, Van B. Deep Learning for a Digital Age: Technology's Untapped Potential to Enrich Higher Education. San Francisco: Jossey-Bass, 2002. LB2395.7 .W45 2002. (EHS Stacks)

Yu, Fu-Yun and Hsin-Jin Jessy Yu. "Incorporating E-Mail into the Learning Process: Its Impact on Student Academic Achievement and Attitudes." Computers & Education 38 (2002): 117-126.

A study of the impacts on student attitudes and achievement of incorporating E-mail into classroom instruction. Taiwanese university students in a "computers in education" course were split into an E-mail group and a paper-based group. Results indicate better performance in the E-mail group, but no difference in attitudes between the two. Conclusion includes recommendations for effective use of E-mail in education.

[http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=03601315&issue=v38i1-3&article=117\\_ieitlposaaaa](http://journals.ohiolink.edu/cgi-bin/sciserv.pl?collection=journals&journal=03601315&issue=v38i1-3&article=117_ieitlposaaaa)

*(See other articles in this issue.)*

Zemsky, Robert and Massy, William F. Thwarted Innovation: What Happened to E-Learning and Why. Philadelphia: The Learning Alliance (U. of PA): 2004  
<http://www.thelearningalliance.info/Docs/Jun2004/ThwartedInnovation.pdf>

Zull, James E. The Art of Changing the Brain: Enriching Teaching by Exploring the Biology of Learning. Sterling, Va.: Stylus, 2002. LB1057 .Z85 2002. (EHS Stacks)